UNITED STATES DISTRICT COURT IN THE EASTERN DISTRICT OF TEXAS TYLER DIVISION

DATA SCAPE LIMITED,

C.A. No. 6:18-cv-00660

Plaintiff,

v.

JURY TRIAL DEMANDED

SAP AMERICA, INC., and SAP SE,

Defendants.

COMPLAINT FOR PATENT INFRINGEMENT

This is an action for patent infringement arising under the Patent Laws of the United States of America, 35 U.S.C. § 1 *et seq.* in which Plaintiff Data Scape Limited ("Plaintiff," "Data Scape") makes the following allegations against Defendant SAP America, Inc. and SAP SE ("Defendants" or "SAP"):

PARTIES

- 1. Data Scape is a company organized under the laws of Ireland with its office located at Office 115, 4-5 Burton Hall Road, Sandyford, Dublin 18, Ireland.
- 2. On information and belief, Defendant SAP America, Inc. is a Delaware corporation with a principal place of business at 3999 West Chester Pike, Newtown Square, PA 19073. Defendant SAP SE is a European company with its principal place of business at Dietmar-Hopp-Allee 16, Walldorf, Germany, 69190. SAP America, Inc. is a wholly owned subsidiary of SAP SE. SAP has regular and established places of business in this District, including, e.g., at 7500 Windrose Avenue Suite 250, Plano, TX 75024. SAP offers its products and/or services, including those accused herein of infringement, to customers and potential customers located in Texas and in this District. SAP can be served with process through its registered agent, the Corporation Trust Company, 1209 Orange St.,

Wilmington, Delaware 19801.

JURISDICTION AND VENUE

- 3. This action arises under the patent laws of the United States, Title 35 of the United States Code. This Court has original subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).
- 4. This Court has personal jurisdiction over SAP in this action because SAP has committed acts within the Eastern District of Texas giving rise to this action and has established minimum contacts with this forum such that the exercise of jurisdiction over SAP would not offend traditional notions of fair play and substantial justice. SAP, directly and through subsidiaries or intermediaries, has committed and continues to commit acts of infringement in this District by, among other things, offering to sell and selling products and/or services that infringe the asserted patents.
- 5. Venue is proper in this district under 28 U.S.C. § 1400(b). SAP is registered to do business in Texas, and upon information and belief, SAP has transacted business in the Eastern District of Texas and has committed acts of direct and indirect infringement in the Eastern District of Texas. SAP has regular and established place(s) of business in this District, as set forth above.

COUNT I

INFRINGEMENT OF U.S. PATENT NO. 7,720,929

- 6. Plaintiff realleges and incorporates by reference the foregoing paragraphs, as if fully set forth herein.
- 7. Data Scape is the owner by assignment of United States Patent No. 7,720,929 ("the '929 Patent") entitled "Communication System And Its Method and Communication Apparatus And Its Method." The '929 Patent was duly and legally issued by the United States Patent and Trademark Office on May 18, 2010. A true and correct copy of the '929 Patent is included as Exhibit A.

- 8. On information and belief, SAP has offered for sale, sold and/or imported into the United States SAP products and services that infringe the '929 patent, and continues to do so. By way of illustrative example, these infringing products and services include, without limitation, SAP's products and services, *e.g.*, SAP Replication Server, and all versions and variations thereof since the issuance of the '929 Patent ("Accused Instrumentalities").
- 9. On information and belief, SAP has directly infringed and continues to infringe the '929 Patent, for example, by making, selling, offering for sale, and/or importing the Accused Instrumentalities, and through its own use and testing of the Accused Instrumentalities, which constitute communication system of Claim 1 of the '929 Patent comprising: a first apparatus having a first storage medium, and a second apparatus, said second apparatus comprising: a second storage medium configured to store management information of data to be transferred to said first storage medium, a communicator configured to communicate data with said first apparatus, a detector configured to detect whether said first apparatus and said second apparatus are connected, an editor configured to select certain data to be transferred and to edit said management information based on said selection without regard to the connection of said first apparatus, and a controller configured to control transfer of the selected data stored in said second apparatus via said communicator based on said management information edited by said editor when said detector detects that said first apparatus and said second apparatus are connected, wherein said controller is configured to compare said management information edited by said editor with management information of data stored in said first storage medium and to transmit data in said second apparatus based on the results of the comparison. Upon information and belief, SAP uses the Accused Instrumentalities, which are infringing systems, for its own internal non-testing business purposes, while testing the Accused Instrumentalities, and while providing technical support and repair services for the Accused Instrumentalities to SAP's customers.

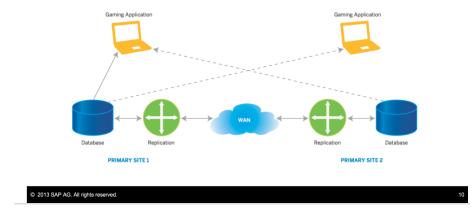
- 10. On information and belief, SAP has had knowledge of the '929 Patent since at least the filing of the original Complaint in this action, or shortly thereafter, and on information and belief, SAP knew of the '929 Patent and knew of its infringement, including by way of this lawsuit. By the time of trial, SAP will have known and intended (since receiving such notice) that their continued actions would actively induce and contribute to the infringement of the claims of the '929 Patent.
- 11. On information and belief, use of the Accused Instrumentalities in their ordinary and customary fashion results in infringement of the claims of the '929 Patent.
- 12. SAP's affirmative acts of making, using, selling, offering for sale, and/or importing the Accused Instrumentalities have induced and continue to induce users of the Accused Instrumentalities to use the Accused Instrumentalities in their normal and customary way to infringe the claims of the '929 Patent, knowing that when the Accused Instrumentalities are used in their ordinary and customary manner, such systems constitute infringing communication systems comprising: a first apparatus having a first storage medium, and a second apparatus, said second apparatus comprising: a second storage medium configured to store management information of data to be transferred to said first storage medium, a communicator configured to communicate data with said first apparatus, a detector configured to detect whether said first apparatus and said second apparatus are connected, an editor configured to select certain data to be transferred and to edit said management information based on said selection without regard to the connection of said first apparatus, and a controller configured to control transfer of the selected data stored in said second apparatus via said communicator based on said management information edited by said editor when said detector detects that said first apparatus and said second apparatus are connected, wherein said controller is configured to compare said management information edited by said editor with management information of data stored in said first storage medium and to transmit data in said second apparatus based on the results of the comparison. For example, SAP explains to customers the benefits of using

the Accused Instrumentalities, such as by touting their advantages of supplying "target systems with the most current information from diverse data sources across the enterprise." See https://www.sap.com/documents/2016/03/54491d34-627c-0010-82c7eda71af511fa.html?need_redirect_to_background_page=false. SAP also induces its customers to use the Accused Instrumentalities to infringe other claims of the '929 Patent. SAP specifically intended and was aware that the normal and customary use of the Accused Instrumentalities on compatible systems would infringe the '929 Patent. SAP performed the acts that constitute induced infringement, and would induce actual infringement, with the knowledge of the '929 Patent and with the knowledge, or willful blindness to the probability, that the induced acts would constitute infringement. On information and belief, SAP engaged in such inducement to promote the sales of the Accused Instrumentalities, e.g., through SAP's user manuals, product support, marketing materials, demonstrations, installation support, and training materials to actively induce the users of the accused products to infringe the '929 Patent. Accordingly, SAP as induced and continues to induce end users of the accused products to use the accused products in their ordinary and customary way with compatible systems to make and/or use systems infringing the '929 Patent, knowing that such use of the Accused Instrumentalities with compatible systems will result in infringement of the '929 Patent. Accordingly, SAP has been (since at least as of filing of the original complaint), and currently is, inducing infringement of the '929 Patent, in violation of 35 U.S.C. § 271(b).

13. SAP has also infringed, and continues to infringe, claims of the '929 patent by offering to commercially distribute, commercially distributing, making, and/or importing the Accused Instrumentalities, which are used in practicing the process, or using the systems, of the '929 patent, and constitute a material part of the invention. SAP knows the components in the Accused Instrumentalities to be especially made or especially adapted for use in infringement of the '929 patent, not a staple article, and not a commodity of commerce suitable for substantial noninfringing use. For example, the ordinary way of

using the Accused Instrumentalities infringes the patent claims, and as such, is especially adapted for use in infringement. Accordingly, SAP has been, and currently is, contributorily infringing the '929 patent, in violation of 35 U.S.C. § 271(c).

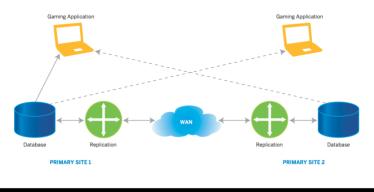
- 14. The Accused Instrumentalities include "[a] communication system including a first apparatus having a first storage medium, and a second apparatus." For example, the Accused Instrumentalities replicate transactions from the "PRIMARY SITE 2" to the "PRIMARY SITE 1." Moreover, the Accused Instrumentalities include a storage medium (e.g., Database) in the "PRIMARY SITE 2."
 - · Replicates transactions at two main computer centers hundreds of miles apart
 - If one system becomes unavailable, operations switch to the available system
 - When the system that was unavailable returns to service, SAP Sybase Replication Server automatically resynchronizes that system



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15. The Accused Instrumentalities include a second apparatus comprising: a second storage medium configured to store management information of data to be transferred to said first storage medium. For example, the "PRIMARY SITE 1" includes a database, which is an example of a second storage medium.

- · Replicates transactions at two main computer centers hundreds of miles apart
- If one system becomes unavailable, operations switch to the available system
- When the system that was unavailable returns to service, SAP Sybase Replication Server automatically resynchronizes that system



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https://tdwi.org/~/media/BAA34D431CC54A17820445580BBFF00C.ppt. Moreover, the Accused Instrumentalities store management information of data (e.g., "[A] table replication definition describes the table and the columns that are to be replicated." https://help.sap.com/doc/download_multimedia_zip-

rs1571301 sap rs ref man en pdf/15.7.1.301/en-US/SAP RS Ref Man en.pdf.). The Accused Instrumentalities also state that "primary table is the replication source; a replicate table is the destination." https://help.sap.com/doc/download multimedia zip-rs1571301 sap rs ref man en pdf/15.7.1.301/en-US/SAP RS Ref Man en.pdf.

Furthermore, the replication definition is created in the "Replication Server that manages the database where the primary table is stored." https://help.sap.com/doc/download_multimedia_zip-

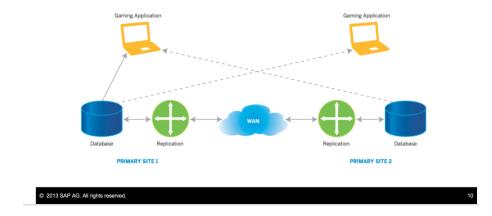
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16. The Accused Instrumentalities include a second apparatus comprising "a communicator configured to communicate data with said first apparatus." For example, the Accused Instrumentalities disclose "[A] Replication Server sends messages to, or receives messages from, another Replication Server via a route. Such messages include data for replicated transactions. A route may connect Replication Servers across a local-

area network or a wide-area network." https://help.sap.com/doc/download_multimedia_zip-

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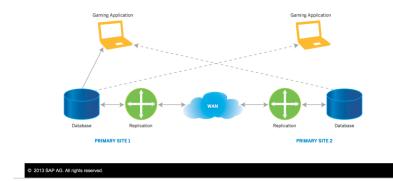
- · Replicates transactions at two main computer centers hundreds of miles apart
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- When the system that was unavailable returns to service, SAP Sybase Replication Server automatically resynchronizes that system



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17. The Accused Instrumentalities further include a second apparatus comprising "a detector configured to detect whether said first apparatus and a second apparatus are connected." For example, the Accused Instrumentalities include a detector that determines if the Replication Server at the "PRIMARY SITE 1" is connected to another Replication Server at the "PRIMARY SITE 2." As such, the Accused Instrumentalities automatically resynchronize data when two replication sites are connected.

- Replicates transactions at two main computer centers hundreds of miles apart
- If one system becomes unavailable, operations switch to the available system
- When the system that was unavailable returns to service, SAP Sybase Replication Server automatically resynchronizes that system



https://tdwi.org/~/media/BAA34D431CC54A17820445580BBFF00C.ppt. As another example, the Accused Instrumentalities disclose "[A] Replication Server sends messages to, or receives messages from, another Replication Server via a route. Such messages include data for replicated transactions. A route may connect Replication Servers across a local-area network or a wide-area network." https://help.sap.com/doc/download_multimedia_zip-

rs1571301 sap rs ref man en pdf/15.7.1.301/en-US/SAP RS Ref Man en.pdf.

Moreover, the Accused Instrumentalities provide admin show_connections[, 'primary' | 'replicate' | 'logical'] command that "[D]isplays information about all connections from the Replication Server to data servers and to other Replication Servers." https://help.sap.com/doc/download_multimedia_zip-

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18. The Accused Instrumentalities further include a second apparatus comprising "an editor configured to select certain data to be transferred and to edit said management information based on said selection without regard to the connection of said first apparatus." For example, the Accused Instrumentalities let the user "define the data and stored procedures that you want to replicate at remote databases, as well as letting you specify the destination databases themselves."

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rs1571301_sap_rs_admin_v1_en_pdf/15.7.1.301/en-US/SAP_RS_Admin_V1_en.pdf.

Moreover, the Accused Instrumentalities are configured to "create one or more replication"

definitions to describe each primary (source) table."

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As such, the Accused Instrumentalities are also configured to select data to be transferred (e.g., "You then create subscriptions for transactions on the data defined in the replication definition. A subscription instructs Replication Server to copy transactions for all rows or for qualifying rows only. Copies of a table can be limited to only the rows or columns needed."

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Moreover, the Accused Instrumentalities allow editing the management information even if the first apparatus and the second apparatus are disconnected. For example, the Accused Instrumentalities are configured to alter a replication definition by utilizing "alter database replication definition" command.

alter database replication definition allows you to replace one filter at a time. For example:

alter database replication definition rep_1C with primary at PDS.pdb not replicate tables in (table2) with dsi_suspended

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Moreover, the Accused Instrumentalities disclose that "[A]ltering a database replication definition with associated subscriptions may desynchronize replicate tables."

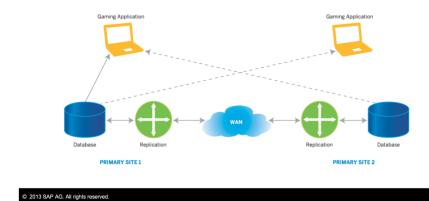
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19. The Accused Instrumentalities further include a second apparatus comprising "a controller configured to control transfer of the selected data stored in said second apparatus to said first apparatus via said communicator based on said management information edited by said editor when said detector detects that said first apparatus and said second apparatus are connected." For example, the Accused Instrumentalities are able to automatically restart the transfer of data defined in the replication definition after detecting connection between the first apparatus and the second apparatus (e.g., "When the system that was unavailable return to service, SAP Sybase Replication Server automatically resynchronizes that system."

https://tdwi.org/~/media/BAA34D431CC54A17820445580BBFF00C.ppt).

- · Replicates transactions at two main computer centers hundreds of miles apart
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- When the system that was unavailable returns to service, SAP Sybase Replication Server automatically resynchronizes that system



https://tdwi.org/~/media/BAA34D431CC54A17820445580BBFF00C.ppt. Moreover, the Accused Instrumentalities disclose "[A] Replication Server sends messages to, or receives messages from, another Replication Server via a route. Such messages include data for replicated transactions. A route may connect Replication Servers across a local-area network or a wide-area network." https://help.sap.com/doc/download_multimedia_zip-rs1571301_sap_rs_ref_man_en_pdf/15.7.1.301/en-US/SAP_RS_Ref_Man_en.pdf.

20. The Accused Instrumentalities further include a second apparatus "wherein said controller is configured to compare said management information edited by said editor with management information of data stored in said first storage medium and to transmit data in said second apparatus based on result of the comparison." For example, the Accused Instrumentalities provide a subscription for a replication definition created at Replication Server (e.g., "If you create a replication definition for a table at Replication Server, you must create a subscription for that table replication definition at the replicate database." https://help.sap.com/doc/download multimedia ziprs1571301_sap_rs_admin_v1_en_pdf/15.7.1.301/en-US/SAP_RS_Admin_V1_en.pdf). As such, the Accused Instrumentalities state that "[A] subscription instructs Replication Server to copy data from primary tables to specified replicate databases." https://help.sap.com/doc/download_multimedia_ziprs1571301 sap rs admin v1 en pdf/15.7.1.301/en-US/SAP RS Admin V1 en.pdf. Moreover, according to SAP, a database subscription is stored at each subscribing database (e.g., "When you create a database replication definition at the primary database, you must database subscription each subscribing database." also create a at https://help.sap.com/doc/download multimedia ziprs1571301 sap rs admin v1 en pdf/15.7.1.301/en-US/SAP RS Admin V1 en.pdf.). As another example, the Accused Instrumentalities further state that subscriptions "identify the replication definition or publication to which you are subscribing, the source and destination databases and data servers, and the materialization method by which the initial

21. SAP also infringes other claims of the '929 Patent, directly and through inducing infringement and contributory infringement.

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information is to be copied."

22. By making, using, offering for sale, selling and/or importing into the United States the Accused Instrumentalities, and touting the benefits of using the Accused

Instrumentalities' accused features, SAP has injured Data Scape and is liable to Data Scape for infringement of the '929 Patent pursuant to 35 U.S.C. § 271.

23. As a result of SAP's infringement of the '929 Patent, Plaintiff Data Scape is entitled to monetary damages in an amount adequate to compensate for SAP's infringement, but in no event less than a reasonable royalty for the use made of the invention by SAP, together with interest and costs as fixed by the Court.

COUNT II

INFRINGEMENT OF U.S. PATENT NO. 7,617,537

- 24. Plaintiff realleges and incorporates by reference the foregoing paragraphs, as if fully set forth herein.
- 25. Data Scape is the owner by assignment of United States Patent No. 7,617,537 ("the '537 Patent") entitled "Communication System And Its Method and Communication Apparatus And Its Method." The '537 Patent was duly and legally issued by the United States Patent and Trademark Office on Nov. 10, 2009. A true and correct copy of the '537 Patent is included as Exhibit B.
- 26. On information and belief, SAP has offered for sale, sold and/or imported into the United States SAP products and services that infringe the '537 patent, and continues to do so. By way of illustrative example, these infringing products and services include, without limitation, SAP's products and services, *e.g.*, SAP Replication Server, and all versions and variations thereof since the issuance of the '537 Patent ("Accused Instrumentalities").
- 27. On information and belief, SAP has directly infringed and continues to infringe the '537 Patent, for example, by making, selling, offering for sale, and/or importing the Accused Instrumentalities, and through its own use and testing of the Accused Instrumentalities, which constitute communication method of Claim 1 of the '537 Patent, to transfer content data to a first apparatus from a second apparatus, comprising: judging whether said first apparatus and said second apparatus are connected; comparing,

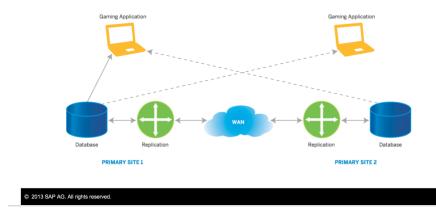
upon judging that said first apparatus and said second apparatus are connected, an identifier of said first apparatus with an identifier stored in said second apparatus; comparing, when said identifier of said first apparatus corresponds to said identifier stored in said second apparatus, a first list of content data of said first apparatus and a second list of content data of said second apparatus; transferring, from the second apparatus to the first apparatus, first content data, which is registered in said second list and is not registered in said first list; and deleting, from the first apparatus, second content data, which is registered in said first list and is not registered in said second list. Upon information and belief, SAP uses the Accused Instrumentalities, which are infringing systems, for its own internal non-testing business purposes, while testing the Accused Instrumentalities, and while providing technical support and repair services for the Accused Instrumentalities to SAP's customers.

- 28. On information and belief, SAP has had knowledge of the '537 Patent since at least the filing of the original Complaint in this action, or shortly thereafter, and on information and belief, SAP knew of the '537 Patent and knew of its infringement, including by way of this lawsuit. By the time of trial, SAP will have known and intended (since receiving such notice) that their continued actions would actively induce and contribute to the infringement of the claims of the '537 Patent.
- 29. On information and belief, use of the Accused Instrumentalities in their ordinary and customary fashion results in infringement of the claims of the '537 Patent.
- 30. SAP's affirmative acts of making, using, selling, offering for sale, and/or importing the Accused Instrumentalities have induced and continue to induce users of the Accused Instrumentalities to use the Accused Instrumentalities in their normal and customary way to infringe the claims of the '537 Patent, knowing that when the Accused Instrumentalities are used in their ordinary and customary manner, such method constitute infringing communication method comprising: judging whether said first apparatus and said second apparatus are connected; comparing, upon judging that said first apparatus and said second apparatus are connected, an identifier of said first apparatus with an identifier

stored in said second apparatus; comparing, when said identifier of said first apparatus corresponds to said identifier stored in said second apparatus, a first list of content data of said first apparatus and a second list of content data of said second apparatus; transferring, from the second apparatus to the first apparatus, first content data, which is registered in said second list and is not registered in said first list; and deleting, from the first apparatus, second content data, which is registered in said first list and is not registered in said second For example, SAP explains to customers the benefits of using the Accused Instrumentalities, such as by touting their advantages of supplying "target systems with the most current information from diverse data sources across the enterprise." See https://www.sap.com/documents/2016/03/54491d34-627c-0010-82c7eda71af511fa.html?need_redirect_to_background_page=false. SAP also induces its customers to use the Accused Instrumentalities to infringe other claims of the '537 Patent. SAP specifically intended and was aware that the normal and customary use of the Accused Instrumentalities on compatible systems would infringe the '537 Patent. SAP performed the acts that constitute induced infringement, and would induce actual infringement, with the knowledge of the '537 Patent and with the knowledge, or willful blindness to the probability, that the induced acts would constitute infringement. On information and belief, SAP engaged in such inducement to promote the sales of the Accused Instrumentalities, e.g., through SAP's user manuals, product support, marketing materials, demonstrations, installation support, and training materials to actively induce the users of the accused products to infringe the '537 Patent. Accordingly, SAP as induced and continues to induce end users of the accused products to use the accused products in their ordinary and customary way with compatible systems to make and/or use systems infringing the '537 Patent, knowing that such use of the Accused Instrumentalities with compatible systems will result in infringement of the '537 Patent. Accordingly, SAP has been (since at least as of filing of the original complaint), and currently is, inducing infringement of the '537

Patent, in violation of 35 U.S.C. § 271(b).

- 31. SAP has also infringed, and continues to infringe, claims of the '537 patent by offering to commercially distribute, commercially distributing, making, and/or importing the Accused Instrumentalities, which are used in practicing the process, or using the systems, of the '537 patent, and constitute a material part of the invention. SAP knows the components in the Accused Instrumentalities to be especially made or especially adapted for use in infringement of the '537 patent, not a staple article, and not a commodity of commerce suitable for substantial noninfringing use. For example, the ordinary way of using the Accused Instrumentalities infringes the patent claims, and as such, is especially adapted for use in infringement. Accordingly, SAP has been, and currently is, contributorily infringing the '537 patent, in violation of 35 U.S.C. § 271(c).
- 32. The Accused Instrumentalities perform "[a] communication method to transfer content data to a first apparatus from a second apparatus." For example, the Accused Instrumentalities transfer content data from the "PRIMARY SITE 2" to the "PRIMARY SITE 1."
 - · Replicates transactions at two main computer centers hundreds of miles apart
 - If one system becomes unavailable, operations switch to the available system
 - When the system that was unavailable returns to service, SAP Sybase Replication Server automatically resynchronizes that system



https://tdwi.org/~/media/BAA34D431CC54A17820445580BBFF00C.ppt. Moreover, the Accused Instrumentalities disclose "[A] Replication Server sends messages to, or receives messages from, another Replication Server via a route. Such messages include data for

replicated transactions. A route may connect Replication Servers across a local-area network or a wide-area network." https://help.sap.com/doc/download_multimedia_zip-rs1571301_sap_rs_ref_man_en_pdf/15.7.1.301/en-US/SAP_RS_Ref_Man_en.pdf.

- 33. The Accused Instrumentalities perform a method comprising "judging whether said first apparatus and said second apparatus are connected." For example, the Accused Instrumentalities are able to automatically restart the transfer of data defined in the replication definition after detecting connection between the first apparatus and the second apparatus (e.g., "When the system that was unavailable return to service, SAP Sybase Replication Server automatically resynchronizes that system." https://tdwi.org/~/media/BAA34D431CC54A17820445580BBFF00C.ppt).
- 34. The Accused Instrumentalities perform "comparing, upon judging that said first apparatus and said second apparatus are connected, an identifier of said first apparatus with an identifier stored in said second apparatus." For example, the Accused Instrumentalities are able to automatically restart the transfer of data defined in the replication definition after detecting connection between the first apparatus and the second apparatus (e.g., "When the system that was unavailable return to service, SAP Sybase Replication automatically resynchronizes system." Server that https://tdwi.org/~/media/BAA34D431CC54A17820445580BBFF00C.ppt). Moreover, the Accused Instrumentalities state that "[A] subscription instructs Replication Server to copy data from primary tables to specified replicate databases." https://help.sap.com/doc/download multimedia zip-

As such, the Accused Instrumentalities compare database identifiers of the source and destination databases being replicated. (e.g., "[A]s part of design and planning, you designate source and destination databases for your replication system and create the routes

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that raplicated data follows from one Poplication Server to another."

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rs1571301_sap_rs_admin_v1_en_pdf/15.7.1.301/en-US/SAP_RS_Admin_V1_en.pdf).

35. The Accused Instrumentalities perform "comparing, when said identifier of said first apparatus corresponds to said identifier stored in said second apparatus, a first list of content data of said first apparatus and a second list of content data of said second apparatus." For example, the Accused Instrumentalities provide a subscription for a replication definition created at Replication Server (e.g., "If you create a replication definition for a table at Replication Server, you must create a subscription for that table replication definition at the replicate database." https://help.sap.com/doc/download multimedia zip-

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As such, the Accused Instrumentalities state that "[A] subscription instructs Replication Server to copy data from primary tables to specified replicate databases." https://help.sap.com/doc/download_multimedia_zip-

rs1571301 sap rs admin v1 en pdf/15.7.1.301/en-US/SAP RS Admin V1 en.pdf. Moreover, according to SAP, a database subscription is stored at each subscribing database (e.g., "When you create a database replication definition at the primary database, you must also create a database subscription at each subscribing database." https://help.sap.com/doc/download_multimedia_zip-

rs1571301 sap rs admin v1 en pdf/15.7.1.301/en-US/SAP RS Admin V1 en.pdf.). As another example, the Accused Instrumentalities further state that subscriptions "identify the replication definition or publication to which you are subscribing, the source and destination databases and data servers, and the materialization method by which the initial information is to be copied." https://help.sap.com/doc/download multimedia zip-rs1571301 sap rs admin v1 en pdf/15.7.1.301/en-US/SAP RS Admin V1 en.pdf.

36. The Accused Instrumentalities further perform "transferring, from the second apparatus to the first apparatus, first content data, which is registered in said second

list and is not registered in said first list." For example, the Accused Instrumentalities state that "[A] subscription instructs Replication Server to copy data from primary tables to specified replicate databases." https://help.sap.com/doc/download multimedia zip-rs1571301_sap_rs_admin_v1_en_pdf/15.7.1.301/en-US/SAP_RS_Admin_V1_en.pdf.

As another example, the Accused Instrumentalities disclose "[M]aterialization is the process of copying data specified by a subscription from a primary database to a replicate database, thereby initializing the replicate table." https://help.sap.com/doc/download_multimedia_zip-

rs1571301 sap rs admin v1 en_pdf/15.7.1.301/en-US/SAP_RS_Admin_V1_en.pdf.

37. The Accused Instrumentalities perform "deleting, from the first apparatus, second content data, which is registered in said first list and is not registered in said second list." For example, the Accused Instrumentalities delete data that is removed in the primary database from the destination database (e.g., "Users can replicate both changes to the data (update/insert/delete operations) and stored procedures using this method." https://help.sap.com/doc/download_multimedia_zip-

rs1571301 sap rs admin v1 en pdf/15.7.1.301/en-US/SAP RS Admin V1 en.pdf). As another example, the Accused Instrumentalities disclose "[F]or a delete operation, the source Replication Server sends only the primary key columns to destination Replication Servers or the standby database." https://help.sap.com/doc/download_multimedia_zip-rs1571301_sap_rs_admin_v1_en_pdf/15.7.1.301/en-US/SAP_RS_Admin_V1_en.pdf.

- 38. SAP also infringes other claims of the '537 Patent, directly and through inducing infringement and contributory infringement.
- 39. By making, using, offering for sale, selling and/or importing into the United States the Accused Instrumentalities, and touting the benefits of using the Accused Instrumentalities' accused features, SAP has injured Data Scape and is liable to Data Scape for infringement of the '537 Patent pursuant to 35 U.S.C. § 271.

40. As a result of SAP's infringement of the '537 Patent, Plaintiff Data Scape is entitled to monetary damages in an amount adequate to compensate for SAP's infringement, but in no event less than a reasonable royalty for the use made of the invention by SAP, together with interest and costs as fixed by the Court.

COUNT III

INFRINGEMENT OF U.S. PATENT NO. 8,386,581

- 41. Plaintiff realleges and incorporates by reference the foregoing paragraphs, as if fully set forth herein.
- 42. Data Scape is the owner by assignment of United States Patent No. 8,386,581 ("the '581 Patent") entitled "Communication System And Its Method and Communication Apparatus And Its Method." The '581 Patent was duly and legally issued by the United States Patent and Trademark Office on Feb. 26, 2013. A true and correct copy of the '581 Patent is included as Exhibit C.
- 43. On information and belief, SAP has offered for sale, sold and/or imported into the United States SAP products and services that infringe the '581 patent, and continues to do so. By way of illustrative example, these infringing products and services include, without limitation, SAP's products and services, *e.g.*, SAP Replication Server, and all versions and variations thereof since the issuance of the '581 Patent ("Accused Instrumentalities").
- 44. On information and belief, SAP has directly infringed and continues to infringe the '581 Patent, for example, by making, selling, offering for sale, and/or importing the Accused Instrumentalities, and through its own use and testing of the Accused Instrumentalities, which constitute communication apparatus of Claim 1 of the '581 Patent comprising: a storage unit configured to store content data to a storage medium; a communication unit configured to communicate with an external apparatus; a controller configured to edit a list so that content data is registered in the list, to uniquely associate the list with the external apparatus using a unique identification of the external apparatus,

to extract the list associated with the external apparatus from a plurality of lists in the communication apparatus when the external apparatus is connected to the communication apparatus, and to control transferring of content data registered in the extracted list to the external apparatus. Upon information and belief, SAP uses the Accused Instrumentalities, which are infringing systems, for its own internal non-testing business purposes, while testing the Accused Instrumentalities, and while providing technical support and repair services for the Accused Instrumentalities to SAP's customers.

- 45. On information and belief, SAP has had knowledge of the '581 Patent since at least the filing of the original Complaint in this action, or shortly thereafter, and on information and belief, SAP knew of the '581 Patent and knew of its infringement, including by way of this lawsuit. By the time of trial, SAP will have known and intended (since receiving such notice) that their continued actions would actively induce and contribute to the infringement of the claims of the '581 Patent.
- 46. On information and belief, use of the Accused Instrumentalities in their ordinary and customary fashion results in infringement of the claims of the '581 Patent.
- 47. SAP's affirmative acts of making, using, selling, offering for sale, and/or importing the Accused Instrumentalities have induced and continue to induce users of the Accused Instrumentalities to use the Accused Instrumentalities in their normal and customary way to infringe the claims of the '581 Patent, knowing that when the Accused Instrumentalities are used in their ordinary and customary manner, such systems constitute infringing communication systems comprising: a storage unit configured to store content data to a storage medium; a communication unit configured to communicate with an external apparatus; a controller configured to edit a list so that content data is registered in the list, to uniquely associate the list with the external apparatus using a unique identification of the external apparatus, to extract the list associated with the external apparatus from a plurality of lists in the communication apparatus when the external apparatus is connected to the communication apparatus, and to control transferring of

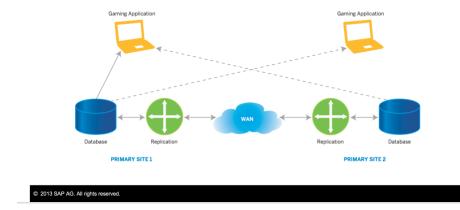
content data registered in the extracted list to the external apparatus. For example, SAP explains to customers the benefits of using the Accused Instrumentalities, such as by touting their advantages of supplying "target systems with the most current information from diverse data sources across the enterprise." *See* https://www.sap.com/documents/2016/03/54491d34-627c-0010-82c7-

eda71af511fa.html?need redirect to background page=false. SAP also induces its customers to use the Accused Instrumentalities to infringe other claims of the '581 Patent. SAP specifically intended and was aware that the normal and customary use of the Accused Instrumentalities on compatible systems would infringe the '581 Patent. SAP performed the acts that constitute induced infringement, and would induce actual infringement, with the knowledge of the '581 Patent and with the knowledge, or willful blindness to the probability, that the induced acts would constitute infringement. On information and belief, SAP engaged in such inducement to promote the sales of the Accused Instrumentalities, e.g., through SAP's user manuals, product support, marketing materials, demonstrations, installation support, and training materials to actively induce the users of the accused products to infringe the '581 Patent. Accordingly, SAP as induced and continues to induce end users of the accused products to use the accused products in their ordinary and customary way with compatible systems to make and/or use systems infringing the '581 Patent, knowing that such use of the Accused Instrumentalities with compatible systems will result in infringement of the '581 Patent. Accordingly, SAP has been (since at least as of filing of the original complaint), and currently is, inducing infringement of the '581 Patent, in violation of 35 U.S.C. § 271(b).

48. SAP has also infringed, and continues to infringe, claims of the '581 patent by offering to commercially distribute, commercially distributing, making, and/or importing the Accused Instrumentalities, which are used in practicing the process, or using the systems, of the '581 patent, and constitute a material part of the invention. SAP knows the components in the Accused Instrumentalities to be especially made or especially

adapted for use in infringement of the '581 patent, not a staple article, and not a commodity of commerce suitable for substantial noninfringing use. For example, the ordinary way of using the Accused Instrumentalities infringes the patent claims, and as such, is especially adapted for use in infringement. Accordingly, SAP has been, and currently is, contributorily infringing the '581 patent, in violation of 35 U.S.C. § 271(c).

- 49. The Accused Instrumentalities include "[a] communication apparatus comprising: a storage unit configured to store content data to a storage medium." For example, the Accused Instrumentalities replicate transactions from the "PRIMARY SITE 2" to the "PRIMARY SITE 1." Moreover, the Accused Instrumentalities include a storage unit (e.g., Database) in the "PRIMARY SITE 2."
 - · Replicates transactions at two main computer centers hundreds of miles apart
 - · If one system becomes unavailable, operations switch to the available system
 - When the system that was unavailable returns to service, SAP Sybase Replication Server automatically resynchronizes that system



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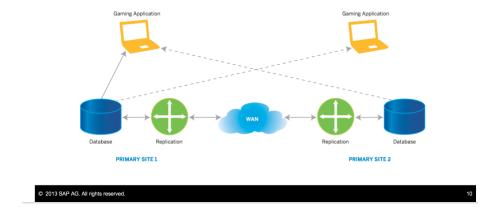
50. The Accused Instrumentalities include "a communication unit configured to communicate with an external apparatus." For example, the Accused Instrumentalities disclose "[A] Replication Server sends messages to, or receives messages from, another Replication Server via a route. Such messages include data for replicated transactions. A route may connect Replication Servers across a local-area network or a wide-area

network."

https://help.sap.com/doc/download_multimedia_zip-

rs1571301 sap_rs_ref_man_en_pdf/15.7.1.301/en-US/SAP_RS_Ref_Man_en.pdf.

- · Replicates transactions at two main computer centers hundreds of miles apart
- If one system becomes unavailable, operations switch to the available system
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https://tdwi.org/~/media/BAA34D431CC54A17820445580BBFF00C.ppt.

The Accused Instrumentalities further include "a controller configured to 51. edit a list so that content data is registered in the list." For example, the Accused Instrumentalities disclose "[A] table replication definition describes the table and the columns that are to be replicated." https://help.sap.com/doc/download_multimedia_ziprs1571301_sap_rs_ref_man_en_pdf/15.7.1.301/en-US/SAP_RS_Ref_Man_en.pdf. another example, the Accused Instrumentalities provide replication definitions that "define the data and stored procedures that you want to replicate at remote databases, as well as letting you specify the destination databases themselves." https://help.sap.com/doc/download_multimedia_zip-

rs1571301_sap_rs_admin_v1_en_pdf/15.7.1.301/en-US/SAP_RS_Admin_V1_en.pdf.

52. The Accused Instrumentalities further include "a controller configured to uniquely associate the list with the external apparatus using a unique identification of the external apparatus." For example, the Accused Instrumentalities are configured to uniquely associate the primary and replicate tables. As such, the Accused Instrumentalities

disclose that the replication definition includes "[T]he names of the primary and replicate tables, if they are different from each other and from the replication definition name." https://help.sap.com/doc/download_multimedia_zip-

rs1571301 sap rs ref man en pdf/15.7.1.301/en-US/SAP RS Ref Man en.pdf.

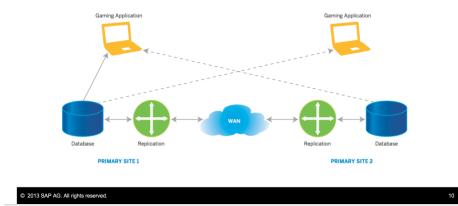
Moreover, the Accused Instrumentalities specify that "[A] primary table is the replication source; a replicate table is the destination."

https://help.sap.com/doc/download_multimedia_zip-

rs1571301_sap_rs_ref_man_en_pdf/15.7.1.301/en-US/SAP_RS_Ref_Man_en.pdf.

53. The Accused Instrumentalities further include "a controller configured to extract the list associated with the external apparatus from a plurality of lists in the communication apparatus when the external apparatus is connected to the communication apparatus." For example, the Accused Instrumentalities provide subscriptions that "identify the replication definition or publication to which you are subscribing, the source and destination databases and data servers, and the materialization method by which the initial information is to be copied." https://help.sap.com/doc/download_multimedia_zip-rs1571301_sap_rs_admin_v1_en_pdf/15.7.1.301/en-US/SAP_RS_Admin_V1_en.pdf. Moreover, the Accused Instrumentalities are able to automatically restart the transfer of data defined in the replication definition after detecting connection when the external apparatus is connected to the communication apparatus (e.g., "When the system that was unavailable return to service, SAP Sybase Replication Server automatically resynchronizes that system." https://tdwi.org/~/media/BAA34D431CC54A17820445580BBFF00C.ppt).

- · Replicates transactions at two main computer centers hundreds of miles apart
- If one system becomes unavailable, operations switch to the available system
- When the system that was unavailable returns to service, SAP Sybase Replication Server automatically resynchronizes that system



https://tdwi.org/~/media/BAA34D431CC54A17820445580BBFF00C.ppt. As another example, the Accused Instrumentalities also states that "[T]he replicated tables at the unavailable databases are updated when communications resume." https://help.sap.com/doc/download_multimedia_zip-

rs1571301 sap_rs_admin_v1_en_pdf/15.7.1.301/en-US/SAP_RS_Admin_V1_en.pdf.

54. The Accused Instrumentalities further include "a controller configured to control transferring of content data registered in the extracted list to the external apparatus." For example, the Accused Instrumentalities disclose "[A] table replication definition describes the table and the columns that are to be replicated." https://help.sap.com/doc/download_multimedia_zip-

rs1571301 sap rs ref man en pdf/15.7.1.301/en-US/SAP RS Ref Man en.pdf. As another example, the Accused Instrumentalities provide replication definitions that "define the data and stored procedures that you want to replicate at remote databases, as well as letting you specify the destination databases themselves." https://help.sap.com/doc/download_multimedia_zip-

rs1571301 sap rs admin v1 en pdf/15.7.1.301/en-US/SAP RS Admin V1 en.pdf.

Moreover, the Accused Instrumentalities provide asynchronous transfer of source data—

that is, "updates to data at the primary are transferred to replicate databases in transactions separate from the update itself." <a href="https://help.sap.com/doc/download_multimedia_zip-rs1571301_sap_rs_admin_v1_en_pdf/15.7.1.301/en-US/SAP_RS_Admin_v1_en_pdf/15.7.1.201/en-US/SAP_RS_A

- 55. SAP also infringes other claims of the '581 Patent, directly and through inducing infringement and contributory infringement.
- 56. By making, using, offering for sale, selling and/or importing into the United States the Accused Instrumentalities, and touting the benefits of using the Accused Instrumentalities' accused features, SAP has injured Data Scape and is liable to Data Scape for infringement of the '581 Patent pursuant to 35 U.S.C. § 271.
- 57. As a result of SAP's infringement of the '581 Patent, Plaintiff Data Scape is entitled to monetary damages in an amount adequate to compensate for SAP's infringement, but in no event less than a reasonable royalty for the use made of the invention by SAP, together with interest and costs as fixed by the Court.

COUNT IV

INFRINGEMENT OF U.S. PATENT NO. 10,027,751

- 58. Plaintiff realleges and incorporates by reference the foregoing paragraphs, as if fully set forth herein.
- 59. Data Scape is the owner by assignment of United States Patent No. 10,027,751 ("the '751 Patent") entitled "Communication system and its method and communication apparatus and its method." The '751 Patent was duly and legally issued by the United States Patent and Trademark Office on July 17, 2018. A true and correct copy of the '751 Patent is included as Exhibit D.
- 60. On information and belief, SAP has offered for sale, sold and/or imported into the United States SAP products and services that infringe the '751 patent, and continues to do so. By way of illustrative example, these infringing products and services include, without limitation, SAP's products and services, *e.g.*, SAP Replication Server, and

all versions and variations thereof since the issuance of the '751 Patent ("Accused Instrumentalities").

- 61. On information and belief, SAP has directly infringed and continues to infringe the '751 Patent, for example, by making, selling, offering for sale, and/or importing the Accused Instrumentalities, and through its own use and testing of the Accused Instrumentalities, which constitute a communication apparatus of Claim 1 of the '751 Patent configured to transmit data to an apparatus comprising: a hardware storage medium configured to store management information of data to be transferred to the apparatus; a communicator configured to communicate data with the apparatus; a detector configured to detect whether the communication apparatus and the apparatus are connected; an editor configured to select certain data to be transferred and to edit the management information based on the selection without regard to the connection of the communication apparatus and the apparatus; and a controller configured to control transfer of the selected data stored in the communication apparatus to the apparatus via the communicator based on the management information edited by the editor when the detector detects that the communication apparatus and the apparatus are connected, wherein the controller is configured to compare the management information edited by the editor with management information of data stored in the apparatus, determine a size of the selected data in the communication apparatus, and transmit data in the communication apparatus based on result of the comparison and the determination. Upon information and belief, SAP uses the Accused Instrumentalities, which are infringing systems, for its own internal non-testing business purposes, while testing the Accused Instrumentalities, and while providing technical support and repair services for the Accused Instrumentalities to SAP's customers.
- 62. On information and belief, SAP has had knowledge of the '751 Patent since at least the filing of the original Complaint in this action, or shortly thereafter, and on information and belief, SAP knew of the '751 Patent and knew of its infringement,

including by way of this lawsuit. By the time of trial, SAP will have known and intended (since receiving such notice) that their continued actions would actively induce and contribute to the infringement of the claims of the '751 Patent.

- 63. On information and belief, use of the Accused Instrumentalities in their ordinary and customary fashion results in infringement of the claims of the '751 Patent.
- 64. SAP's affirmative acts of making, using, selling, offering for sale, and/or importing the Accused Instrumentalities have induced and continue to induce users of the Accused Instrumentalities to use the Accused Instrumentalities in their normal and customary way to infringe the claims of the '751 Patent, knowing that when the Accused Instrumentalities are used in their ordinary and customary manner, such systems constitute infringing communication systems comprising: a hardware storage medium configured to store management information of data to be transferred to the apparatus; a communicator configured to communicate data with the apparatus; a detector configured to detect whether the communication apparatus and the apparatus are connected; an editor configured to select certain data to be transferred and to edit the management information based on the selection without regard to the connection of the communication apparatus and the apparatus; and a controller configured to control transfer of the selected data stored in the communication apparatus to the apparatus via the communicator based on the management information edited by the editor when the detector detects that the communication apparatus and the apparatus are connected, wherein the controller is configured to compare the management information edited by the editor with management information of data stored in the apparatus, determine a size of the selected data in the communication apparatus, and transmit data in the communication apparatus based on result of the comparison and the determination. For example, SAP explains to customers the benefits of using the Accused Instrumentalities, such as by touting their advantages of supplying "target systems with the most current information from diverse data sources across the See https://www.sap.com/documents/2016/03/54491d34-627c-0010-82c7enterprise."

SAP also induces its eda71af511fa.html?need_redirect_to_background_page=false. customers to use the Accused Instrumentalities to infringe other claims of the '751 Patent. SAP specifically intended and was aware that the normal and customary use of the Accused Instrumentalities on compatible systems would infringe the '751 Patent. SAP performed the acts that constitute induced infringement, and would induce actual infringement, with the knowledge of the '751 Patent and with the knowledge, or willful blindness to the probability, that the induced acts would constitute infringement. On information and belief, SAP engaged in such inducement to promote the sales of the Accused Instrumentalities, e.g., through SAP's user manuals, product support, marketing materials, demonstrations, installation support, and training materials to actively induce the users of the accused products to infringe the '751 Patent. Accordingly, SAP as induced and continues to induce end users of the accused products to use the accused products in their ordinary and customary way with compatible systems to make and/or use systems infringing the '751 Patent, knowing that such use of the Accused Instrumentalities with compatible systems will result in infringement of the '751 Patent. Accordingly, SAP has been (since at least as of filing of the original complaint), and currently is, inducing infringement of the '751 Patent, in violation of 35 U.S.C. § 271(b).

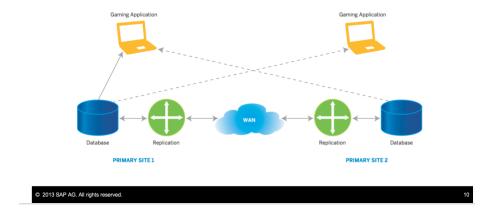
65. SAP has also infringed, and continues to infringe, claims of the '751 patent by offering to commercially distribute, commercially distributing, making, and/or importing the Accused Instrumentalities, which are used in practicing the process, or using the systems, of the '751 patent, and constitute a material part of the invention. SAP knows the components in the Accused Instrumentalities to be especially made or especially adapted for use in infringement of the '751 patent, not a staple article, and not a commodity of commerce suitable for substantial noninfringing use. For example, the ordinary way of using the Accused Instrumentalities infringes the patent claims, and as such, is especially adapted for use in infringement. Accordingly, SAP has been, and currently is, contributorily infringing the '751 patent, in violation of 35 U.S.C. § 271(c).

66. The Accused Instrumentalities include "[a] communication apparatus configured to transmit data to an apparatus, the communication apparatus comprising: a hardware storage medium configured to store management information of data to be transferred to the apparatus." For example, the Accused Instrumentalities support in-"entirely cache." memory databases (IMDB) residing in https://help.sap.com/doc/download multimedia ziprs1571301 sap rs ref man en pdf/15.7.1.301/en-US/SAP RS Ref Man en.pdf. The Accused Instrumentalities also "extends the performance benefits of an in-memory database to disk-resident databases." https://help.sap.com/doc/download_multimedia_zip- rs1571301 sap rs ref man en pdf/15.7.1.301/en-US/SAP RS Ref Man en.pdf. As another example, the Accused Instrumentalities let the user "define the data and stored procedures that you want to replicate at remote databases, as well as letting you specify the destination databases themselves." https://help.sap.com/doc/download multimedia ziprs1571301_sap_rs_admin_v1_en_pdf/15.7.1.301/en-US/SAP_RS_Admin_V1_en.pdf. Moreover, the Accused Instrumentalities are configured to "create one or more replication" table." definitions describe each primary (source) to https://help.sap.com/doc/download multimedia ziprs1571301 sap rs admin v1 en pdf/15.7.1.301/en-US/SAP RS Admin V1 en.pdf. As such, the Accused Instrumentalities are also configured to select data to be transferred (e.g., "You then create subscriptions for transactions on the data defined in the replication definition. A subscription instructs Replication Server to copy transactions for all rows or for qualifying rows only. Copies of a table can be limited to only the rows or columns needed." https://help.sap.com/doc/download_multimedia_ziprs1571301 sap rs admin v1 en pdf/15.7.1.301/en-US/SAP RS Admin V1 en.pdf).

67. The Accused Instrumentalities include "a communicator configured to communicate data with the apparatus." For example, the Accused Instrumentalities

includes a communicator configured to communicate data from the "PRIMARY SITE 2" to the "PRIMARY SITE 1."

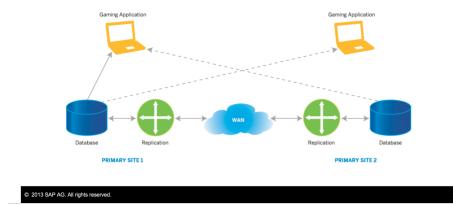
- · Replicates transactions at two main computer centers hundreds of miles apart
- · If one system becomes unavailable, operations switch to the available system
- When the system that was unavailable returns to service, SAP Sybase Replication Server automatically resynchronizes that system



https://tdwi.org/~/media/BAA34D431CC54A17820445580BBFF00C.ppt. Moreover, the Accused Instrumentalities disclose "[A] Replication Server sends messages to, or receives messages from, another Replication Server via a route. Such messages include data for replicated transactions. A route may connect Replication Servers across a local-area network or a wide-area network." https://help.sap.com/doc/download_multimedia_zip-rs1571301_sap_rs_ref_man_en_pdf/15.7.1.301/en-US/SAP_RS_Ref_Man_en.pdf.

68. The Accused Instrumentalities include "a detector configured to detect whether the communication apparatus and the apparatus are connected." For example, the Accused Instrumentalities include a detector that determines if the Replication Server at the "PRIMARY SITE 1" is connected to another Replication Server at the "PRIMARY SITE 2." As such, the Accused Instrumentalities automatically resynchronize data when two replication sites are connected.

- · Replicates transactions at two main computer centers hundreds of miles apart
- If one system becomes unavailable, operations switch to the available system
- When the system that was unavailable returns to service, SAP Sybase Replication Server automatically resynchronizes that system



https://tdwi.org/~/media/BAA34D431CC54A17820445580BBFF00C.ppt. As another example, the Accused Instrumentalities disclose "[A] Replication Server sends messages to, or receives messages from, another Replication Server via a route. Such messages include data for replicated transactions. A route may connect Replication Servers across a local-area network or a wide-area network." https://help.sap.com/doc/download_multimedia_zip-

rs1571301_sap_rs_ref_man_en_pdf/15.7.1.301/en-US/SAP_RS_Ref_Man_en.pdf.

Moreover, the Accused Instrumentalities provide admin show_connections[, 'primary' | 'replicate' | 'logical'] command that "[D]isplays information about all connections from the Replication Server to data servers and to other Replication Servers." https://help.sap.com/doc/download_multimedia_zip-

rs1571301_sap_rs_ref_man_en_pdf/15.7.1.301/en-US/SAP_RS_Ref_Man_en.pdf.

69. The Accused Instrumentalities include "an editor configured to select certain data to be transferred and to edit the management information based on the selection without regard to the connection of the communication apparatus and the apparatus." For example, the Accused Instrumentalities let the user "define the data and stored procedures that you want to replicate at remote databases, as well as letting you specify the destination

databases themselves." https://help.sap_rs_admin_v1_en_pdf/15.7.1.301/en-US/SAP_RS_Admin_V1_en.pdf.

Moreover, the Accused Instrumentalities are configured to "create one or more replication definitions to describe each primary (source) table."

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As such, the Accused Instrumentalities are also configured to select data to be transferred (e.g., "You then create subscriptions for transactions on the data defined in the replication definition. A subscription instructs Replication Server to copy transactions for all rows or for qualifying rows only. Copies of a table can be limited to only the rows or columns needed."

https://help.sap.com/doc/download_multimedia_zip-

rs1571301_sap_rs_admin_v1_en_pdf/15.7.1.301/en-US/SAP_RS_Admin_V1_en.pdf).

Moreover, the Accused Instrumentalities allow editing the management information even if the first apparatus and the second apparatus are disconnected. For example, the Accused Instrumentalities are configured to alter a replication definition by utilizing "alter database replication definition" command.

alter database replication definition allows you to replace one filter at a time. For example:

```
alter database replication definition rep_1C with primary at PDS.pdb not replicate tables in (table2) with dsi_suspended
```

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rs1571301 sap rs admin v1 en pdf/15.7.1.301/en-US/SAP RS Admin V1 en.pdf.

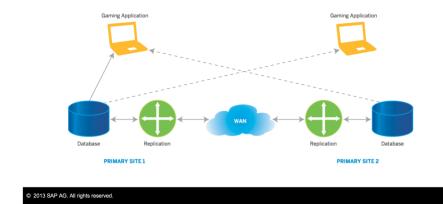
Moreover, the Accused Instrumentalities disclose that "[A]ltering a database replication definition with associated subscriptions may desynchronize replicate tables."

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70. The Accused Instrumentalities include "a controller configured to control transfer of the selected data stored in the communication apparatus to the apparatus via the communicator based on the management information edited by the editor when the detector detects that the communication apparatus and the apparatus are connected." For example, the Accused Instrumentalities are able to automatically restart the transfer of data defined in the replication definition after detecting connection between the first apparatus and the second apparatus (e.g., "When the system that was unavailable return to service, SAP Sybase Replication Server automatically resynchronizes that system." https://tdwi.org/~/media/BAA34D431CC54A17820445580BBFF00C.ppt).

- Replicates transactions at two main computer centers hundreds of miles apart
- · If one system becomes unavailable, operations switch to the available system
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https://tdwi.org/~/media/BAA34D431CC54A17820445580BBFF00C.ppt. As another example, the Accused Instrumentalities also states that "[T]he replicated tables at the unavailable databases are updated when communications resume." https://help.sap.com/doc/download_multimedia_zip-

rs1571301 sap rs admin v1 en pdf/15.7.1.301/en-US/SAP RS Admin V1 en.pdf.

Moreover, the Accused Instrumentalities disclose "[A] Replication Server sends messages to, or receives messages from, another Replication Server via a route. Such messages include data for replicated transactions. A route may connect Replication Servers across a

local-area network or a wide-area network."

https://help.sap.com/doc/download_multimedia_zip-

rs1571301 sap rs ref man en pdf/15.7.1.301/en-US/SAP RS Ref Man en.pdf.

71. The Accused Instrumentalities further include a controller configured to "compare the management information edited by the editor with management information of data stored in the apparatus." For example, the Accused Instrumentalities provide a subscription for a replication definition created at Replication Server (e.g., "If you create a replication definition for a table at Replication Server, you must create a subscription for that table replication definition at the replicate database." https://help.sap.com/doc/download_multimedia_zip-

<u>rs1571301_sap_rs_admin_v1_en_pdf/15.7.1.301/en-US/SAP_RS_Admin_V1_en.pdf</u>).

As such, the Accused Instrumentalities state that "[A] subscription instructs Replication Server to copy data from primary tables to specified replicate databases." https://help.sap.com/doc/download_multimedia_zip-

rs1571301 sap rs admin v1 en pdf/15.7.1.301/en-US/SAP RS Admin V1 en.pdf. Moreover, according to SAP, a database subscription is stored at each subscribing database (e.g., "When you create a database replication definition at the primary database, you must also create a database subscription at each subscribing database." https://help.sap.com/doc/download_multimedia_zip-

rs1571301 sap rs admin v1 en pdf/15.7.1.301/en-US/SAP RS Admin V1 en.pdf.). As another example, the Accused Instrumentalities further state that subscriptions "identify the replication definition or publication to which you are subscribing, the source and destination databases and data servers, and the materialization method by which the initial information is to be copied." https://help.sap.com/doc/download_multimedia_zip-rs1571301_sap_rs_admin_v1_en_pdf/15.7.1.301/en-US/SAP_RS_Admin_V1_en.pdf.

72. The Accused Instrumentalities further include a controller configured to "determine a size of the selected data in the communication apparatus." For example, the

Accused Instrumentalities determines the size of text, unitext, image, or rawobject data stored in the data row of the source database (e.g., "[I]f you want to materialize text, unitext, image, or rawobject data, you can use automatic materialization only if the size of your data row is less than 32K." https://help.sap.com/doc/download_multimedia_zip-rs1571301_sap_rs_admin_v1_en_pdf/15.7.1.301/en-US/SAP_RS_Admin_V1_en.pdf).

As another example, the Accused Instrumentalities provide configuration parameters that determine "the size of the amount of data that can be sent over the route at one time, time-outs, and synchronization intervals." <a href="https://help.sap.com/doc/download_multimedia_zip-rs1571301_sap_rs_admin_v1_en_pdf/15.7.1.301/en-US/SAP_RS_Admin_V1_en.pdf/15.7.1.301/en.pdf/15.7.1.301/en.pdf/15.7.1.301/en.pdf/15.7.1.301/en.pdf/15.7.1.301/en.pdf/15.7.1.301/en.pdf/15.7.1.301/en.pdf/15.7.1.301/en.pdf/15.7.1.301/en.pdf/15.7.1.301/en.pdf/15.7.1.301/en.pdf/15.7.1.301/en.pdf/15.7.1.301/en.pdf/15.7.1.301/en.pdf/

- 24. The Accused Instrumentalities further include a controller configured to "transmit data in the communication apparatus based on result of the comparison and the determination." For example, the Accused Instrumentalities disclose "[A] table replication definition describes the table and the columns that are to be replicated." https://help.sap.com/doc/download_multimedia_zip-
- rs1571301 sap rs ref man en pdf/15.7.1.301/en-US/SAP RS Ref Man en.pdf. As another example, the Accused Instrumentalities provide replication definitions that "define the data and stored procedures that you want to replicate at remote databases, as well as letting you specify the destination databases themselves." https://help.sap.com/doc/download_multimedia_zip-
- rs1571301 sap rs admin v1 en pdf/15.7.1.301/en-US/SAP RS Admin V1 en.pdf.

 Moreover, the Accused Instrumentalities provide asynchronous transfer of source data—
 that is, "updates to data at the primary are transferred to replicate databases in transactions separate from the update itself." https://help.sap.com/doc/download_multimedia_zip-rs1571301_sap_rs_admin_v1_en_pdf/15.7.1.301/en-US/SAP_RS_Admin_V1_en.pdf.
- 73. Moreover, according to SAP, a database subscription is stored at each subscribing database (e.g., "When you create a database replication definition at the primary database, you must also create a database subscription at each subscribing

database." https://help.sap.com/doc/download_multimedia_ziprs1571301 sap rs admin v1 en pdf/15.7.1.301/en-US/SAP RS Admin V1 en.pdf.). As another example, the Accused Instrumentalities further state that subscriptions "identify the replication definition or publication to which you are subscribing, the source and destination databases and data servers, and the materialization method by which the initial information is to be copied." https://help.sap.com/doc/download multimedia ziprs1571301 sap rs admin v1 en pdf/15.7.1.301/en-US/SAP RS Admin V1 en.pdf. As such, the Accused Instrumentalities are also configured to select data to be transferred (e.g., "You then create subscriptions for transactions on the data defined in the replication definition. A subscription instructs Replication Server to copy transactions for all rows or for qualifying rows only. Copies of a table can be limited to only the rows or columns needed." https://help.sap.com/doc/download_multimedia_ziprs1571301 sap rs admin v1 en pdf/15.7.1.301/en-US/SAP RS Admin V1 en.pdf).

- 74. SAP also infringes other claims of the '751 Patent, directly and through inducing infringement and contributory infringement.
- 75. By making, using, offering for sale, selling and/or importing into the United States the Accused Instrumentalities, and touting the benefits of using the Accused Instrumentalities' accused features, SAP has injured Data Scape and is liable to Data Scape for infringement of the '751 Patent pursuant to 35 U.S.C. § 271.
- 76. As a result of SAP's infringement of the '751 Patent, Plaintiff Data Scape is entitled to monetary damages in an amount adequate to compensate for SAP's infringement, but in no event less than a reasonable royalty for the use made of the invention by SAP, together with interest and costs as fixed by the Court.

COUNT V

INFRINGEMENT OF U.S. PATENT NO. 9,715,893

77. Plaintiff realleges and incorporates by reference the foregoing paragraphs, as if fully set forth herein.

- 78. Data Scape is the owner by assignment of United States Patent No. 9,715,893 ("the '893 Patent") entitled "Recording apparatus, server apparatus, recording method, program and storage medium." The '893 Patent was duly and legally issued by the United States Patent and Trademark Office on Jul. 25, 2017. A true and correct copy of the '893 Patent is included as Exhibit E.
- 79. On information and belief, SAP has offered for sale, sold and/or imported into the United States SAP products and services that infringe the '893 patent, and continues to do so. By way of illustrative example, these infringing products and services include, without limitation, SAP's products and services, *e.g.*, SAP Replication Server, and all versions and variations thereof since the issuance of the '893 Patent ("Accused Instrumentalities").
- 80. On information and belief, SAP has directly infringed and continues to infringe the '893 Patent, for example, by making, selling, offering for sale, and/or importing the Accused Instrumentalities, and through its own use and testing of the Accused Instrumentalities, which constitute an information processing apparatus of Claim 32 of the '893 Patent comprising: circuitry configured to automatically read first management data from a first storage medium, the first management data identifying files of source data recorded on the first storage medium, automatically identifying one of the files of source data based on the first management data and second management data, the second management data identifying files of transferred data stored on a second storage medium, the one of the files of source data being absent from the second storage medium, automatically transfer the one of the files of source data to the second storage medium, the one of the files of the source data being transferred becoming one of the files of transferred data, and automatically output transferring status of the one of the files of source data by a symbolic figure. Upon information and belief, SAP uses the Accused Instrumentalities, which are infringing systems, for its own internal non-testing business purposes, while

testing the Accused Instrumentalities, and while providing technical support and repair services for the Accused Instrumentalities to SAP's customers.

- 81. On information and belief, SAP has had knowledge of the '893 Patent since at least the filing of the original Complaint in this action, or shortly thereafter, and on information and belief, SAP knew of the '893 Patent and knew of its infringement, including by way of this lawsuit. By the time of trial, SAP will have known and intended (since receiving such notice) that their continued actions would actively induce and contribute to the infringement of the claims of the '893 Patent.
- 82. On information and belief, use of the Accused Instrumentalities in their ordinary and customary fashion results in infringement of the claims of the '893 Patent.
- 83. SAP's affirmative acts of making, using, selling, offering for sale, and/or importing the Accused Instrumentalities have induced and continue to induce users of the Accused Instrumentalities to use the Accused Instrumentalities in their normal and customary way to infringe the claims of the '893 Patent, knowing that when the Accused Instrumentalities are used in their ordinary and customary manner, such systems constitute an infringing information processing apparatus comprising: circuitry configured to automatically read first management data from a first storage medium, the first management data identifying files of source data recorded on the first storage medium, automatically identifying one of the files of source data based on the first management data and second management data, the second management data identifying files of transferred data stored on a second storage medium, the one of the files of source data being absent from the second storage medium, automatically transfer the one of the files of source data to the second storage medium, the one of the files of the source data being transferred becoming one of the files of transferred data, and automatically output transferring status of the one of the files of source data by a symbolic figure. For example, SAP explains to customers the benefits of using the Accused Instrumentalities, such as by touting their advantages of supplying "target systems with the most current information from diverse

data sources across the enterprise." *See* https://www.sap.com/documents/2016/03/54491d34-627c-0010-82c7-

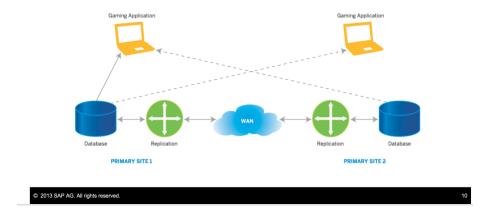
eda71af511fa.html?need_redirect_to_background_page=false. SAP also induces its customers to use the Accused Instrumentalities to infringe other claims of the '893 Patent. SAP specifically intended and was aware that the normal and customary use of the Accused Instrumentalities on compatible systems would infringe the '893 Patent. SAP performed the acts that constitute induced infringement, and would induce actual infringement, with the knowledge of the '893 Patent and with the knowledge, or willful blindness to the probability, that the induced acts would constitute infringement. On information and belief, SAP engaged in such inducement to promote the sales of the Accused Instrumentalities, e.g., through SAP's user manuals, product support, marketing materials, demonstrations, installation support, and training materials to actively induce the users of the accused products to infringe the '893 Patent. Accordingly, SAP as induced and continues to induce end users of the accused products to use the accused products in their ordinary and customary way with compatible systems to make and/or use systems infringing the '893 Patent, knowing that such use of the Accused Instrumentalities with compatible systems will result in infringement of the '893 Patent. Accordingly, SAP has been (since at least as of filing of the original complaint), and currently is, inducing infringement of the '893 Patent, in violation of 35 U.S.C. § 271(b).

84. SAP has also infringed, and continues to infringe, claims of the '893 patent by offering to commercially distribute, commercially distributing, making, and/or importing the Accused Instrumentalities, which are used in practicing the process, or using the systems, of the '893 patent, and constitute a material part of the invention. SAP knows the components in the Accused Instrumentalities to be especially made or especially adapted for use in infringement of the '893 patent, not a staple article, and not a commodity of commerce suitable for substantial noninfringing use. For example, the ordinary way of using the Accused Instrumentalities infringes the patent claims, and as such, is especially

adapted for use in infringement. Accordingly, SAP has been, and currently is, contributorily infringing the '893 patent, in violation of 35 U.S.C. § 271(c).

85. The Accused Instrumentalities include "[a]n information processing apparatus, comprising: circuitry configured to automatically read first management data from a first storage medium, the first management data identifying files of source data recorded on the first storage medium." For example, the Accused Instrumentalities include a storage medium (e.g., Database) in the "PRIMARY SITE 1" and in the "PRIMARY SITE 2."

- · Replicates transactions at two main computer centers hundreds of miles apart
- If one system becomes unavailable, operations switch to the available system
- When the system that was unavailable returns to service, SAP Sybase Replication Server automatically resynchronizes that system



https://tdwi.org/~/media/BAA34D431CC54A17820445580BBFF00C.ppt

More specifically, the Accused Instrumentalities support in-memory databases (IMDB) residing "entirely in cache." https://help.sap.com/doc/download_multimedia_zip-rs1571301_sap_rs_ref_man_en_pdf/15.7.1.301/en-US/SAP_RS_Ref_Man_en.pdf. As another example, the Accused Instrumentalities provide replication definitions that "define

the data and stored procedures that you want to replicate at remote databases, as well as letting you specify the destination databases themselves." https://help.sap.com/doc/download_multimedia_zip-

rs1571301 sap rs admin v1 en pdf/15.7.1.301/en-US/SAP RS Admin V1 en.pdf.

Moreover, the Accused Instrumentalities disclose "[A] table replication definition describes the table and the columns that are to be replicated." https://help.sap.com/doc/download_multimedia_zip-

rs1571301_sap_rs_ref_man_en_pdf/15.7.1.301/en-US/SAP_RS_Ref_Man_en.pdf.

86. The Accused Instrumentalities include circuitry configured "automatically identifying one of the files of source data based on the first management data and second management data, the second management data identifying files of transferred data stored on a second storage medium, the one of the files of source data being absent from the second storage medium." For example, the Accused Instrumentalities provide replication definitions that "define the data and stored procedures that you want to replicate at remote databases, as well as letting you specify the destination databases themselves." https://help.sap.com/doc/download multimedia ziprs1571301 sap rs admin v1 en pdf/15.7.1.301/en-US/SAP RS Admin V1 en.pdf. Moreover, the Accused Instrumentalities state that "[A] subscription instructs Replication Server to copy data from primary tables to specified replicate databases." https://help.sap.com/doc/download_multimedia_zip-

Furthermore, the Accused Instrumentalities provides subscriptions stored on the second storage medium "for transactions on the data defined in the replication definition. A subscription instructs Replication Server to copy transactions for all rows or for qualifying rows only. Copies of a table can be limited to only the rows or columns needed." https://help.sap.com/doc/download_multimedia_zip-

rs1571301 sap rs admin v1 en pdf/15.7.1.301/en-US/SAP RS Admin V1 en.pdf.

In this regard, the Accused Instrumentalities also provide asynchronous transfer of source data absent from the destination database—that is, "updates to data at the primary are transferred to replicate databases in transactions separate from the update itself." https://help.sap.com/doc/download_multimedia_zip-

rs1571301_sap_rs_admin_v1_en_pdf/15.7.1.301/en-US/SAP_RS_Admin_V1_en.pdf.

87. The Accused Instrumentalities further include circuitry configured to "automatically transfer the one of the files of source data to the second storage medium, the one of the files of the source data being transferred becoming one of the files of transferred data." For example, the Accused Instrumentalities disclose "[A] table replication definition describes the table and the columns that are to be replicated." https://help.sap.com/doc/download multimedia zip-

rs1571301 sap rs ref man en pdf/15.7.1.301/en-US/SAP RS Ref Man en.pdf. As another example, the Accused Instrumentalities provide replication definitions that "define the data and stored procedures that you want to replicate at remote databases, as well as letting you specify the destination databases themselves." https://help.sap.com/doc/download_multimedia_zip-

rs1571301 sap_rs_admin_v1_en_pdf/15.7.1.301/en-US/SAP_RS_Admin_V1_en.pdf.

Moreover, the Accused Instrumentalities provide asynchronous transfer of source data—that is, "updates to data at the primary are transferred to replicate databases in transactions separate from the update itself." https://help.sap.com/doc/download_multimedia_zip-rs1571301_sap_rs_admin_v1_en_pdf/15.7.1.301/en-US/SAP_RS_Admin_V1_en.pdf.

88. The Accused Instrumentalities further include circuitry configured to "automatically output transferring status of the one of the files of source data by a symbolic figure." For example, the Accused Instrumentalities provide "sp_setrepcol" command that is configured to "display the replication status for <text>, <unitext>, or <image> columns." https://help.sap.com/doc/download_multimedia_zip-

rs1571301_sap_rs_ref_man_en_pdf/15.7.1.301/en-US/SAP_RS_Ref_Man_en.pdf.

Displays the replication status for all <text>, <unitext>, or <image> columns in the <au_pix> table. <au pix> must be marked for replication using sp setreptable.

sp_setrepcol au_pix

https://help.sap.com/doc/download_multimedia_zip-

rs1571301_sap_rs_ref_man_en_pdf/15.7.1.301/en-US/SAP_RS_Ref_Man_en.pdf.

- 89. SAP also infringes other claims of the '893 Patent, directly and through inducing infringement and contributory infringement.
- 90. By making, using, offering for sale, selling and/or importing into the United States the Accused Instrumentalities, and touting the benefits of using the Accused Instrumentalities' accused features, SAP has injured Data Scape and is liable to Data Scape for infringement of the '893 Patent pursuant to 35 U.S.C. § 271.
- 91. As a result of SAP's infringement of the '893 Patent, Plaintiff Data Scape is entitled to monetary damages in an amount adequate to compensate for SAP's infringement, but in no event less than a reasonable royalty for the use made of the invention by SAP, together with interest and costs as fixed by the Court.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff Data Scape respectfully requests that this Court enter:

- a. A judgment in favor of Plaintiff that SAP has infringed, either literally and/or under the doctrine of equivalents, the '929 Patent, the '751 Patent, the '581 Patent, the '537 Patent, and the '893 Patent (the "asserted patents");
- b. A permanent injunction prohibiting SAP from further acts of infringement of the asserted patents;
- c. A judgment and order requiring SAP to pay Plaintiff its damages, costs, expenses, and prejudgment and post-judgment interest for its infringement of the asserted patents, as provided under 35 U.S.C. § 284;

- d. A judgment and order requiring SAP to provide an accounting and to pay supplemental damages to Data Scape, including without limitation, prejudgment and post-judgment interest;
- e. A judgment and order finding that this is an exceptional case within the meaning of 35 U.S.C. § 285 and awarding to Plaintiff its reasonable attorneys' fees against SAP; and
- f. Any and all other relief as the Court may deem appropriate and just under the circumstances.

DEMAND FOR JURY TRIAL

Plaintiff, under Rule 38 of the Federal Rules of Civil Procedure, requests a trial by jury of any issues so triable by right.

Dated: December 27, 2018 Respectfully submitted,

/s/ Reza Mirzaie

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